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ABSTRACT

This brief addresses four areas of opportunity to influence teacher quality. These areas of opportunity are used to create a framework to help state and district policymakers comprehensively address teacher quality. There are a number of policy levers or strategies that can be used as part of a comprehensive approach to improving teacher quality. They include: preservice teacher education (scholarships, loans, and loan-forgiveness as incentives to enter teacher training, licensure/certification requirements, accreditation of teacher preparation programs, and models of exemplary practices and programs); recruitment and selection (effective communication, teacher mobility policies, and alternate approaches to entering teaching); inservice teacher education (professional learning, induction programs, compensation and quality teaching, and re-certification); and retention (working conditions and compensation and retention). Overall, an approach that addresses each stage of a teacher's career is the best strategy for improving teacher quality. Standards supporting high levels of teacher knowledge, skills, and effectiveness are essential. Feedback should be continually gathered to monitor and adjust teacher quality policies. Compensation, working conditions, and opportunities to grow are key to building and maintaining a quality teacher workforce. (Contains 13 references.) (SM)

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POLICY brief

November 2001

Toward a Comprehensive Approach to Teacher Quality

by Robert Reichardt, Ph.D.

There are no silver bullets for improving teacher quality. Given the factors that influence teaching, a comprehensive approach that touches on each stage of a teacher's career is the best strategy for improving teacher quality. This approach is not easy to implement or maintain. To improve the probability of success, programs working to support and improve teacher quality must not only gather information on their effectiveness, but use these data to improve their effectiveness.

The most basic definition of teacher quality is a teacher's ability to help students reach high standards. Although this definition is simple, it must be placed in context. First, teacher quality is difficult to measure. Using test scores to evaluate teacher quality is technically complex and requires extensive amounts of data — at a minimum, longitudinal data from standards-aligned assessments. Second, teacher quality must be understood in each school's context. Influences on student outcomes, such as school organization, alignment of curriculum and standards, and the physical condition of a school building, can affect teacher quality and are out of an individual teacher's control.

This brief addresses four areas of opportunity to influence teacher quality. These areas of opportunity are used to create a framework to help state and district policymakers comprehensively address teacher quality.

- **Pre-Service:** Educating and certifying future teachers
- **Recruitment & Selection:** Attracting the best and the brightest teachers to the classroom
- **In-Service:** Improving teachers' knowledge and skills
- **Retention:** Keeping the best teachers in the classroom, particularly in the classrooms where their skills are needed most

As shown in Table 1, there are a number of policy levers or strategies that can be used as part of a comprehensive approach to improving teacher quality. Although the list provided in Table 1 is not a complete list of all of the ways in which teacher quality can be influenced, these levers are the

Key Points

- ***An approach that addresses each stage of a teacher's career is the best strategy for improving teacher quality.***
- ***Standards that support high levels of teacher knowledge, skills, and effectiveness are essential.***
- ***Feedback should be continually gathered to monitor and adjust teacher quality policies.***
- ***Compensation, working conditions, and opportunities to grow are key to building and maintaining a quality teacher workforce.***

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policy responses that states and districts are using to influence teacher quality. This brief provides information about these levers and references to sources of additional information about them and about the broader area of teacher quality.

Table 1: Areas of Opportunity and Policy Levers to Affect Teacher Quality

Areas of Opportunity to Influence Teacher Quality	Policy Levers to Affect Teacher Quality
Pre-Service	• Scholarships, loans, and loan-forgiveness as incentives to enter teaching • Licensure/certification requirements • Accreditation of teacher preparation programs • Models of exemplary practices & programs
Recruitment & Selection	• Effective communication with applicants • Alternate approaches to entering teaching • Teacher mobility policies
In-Service	• Professional learning • Induction programs to help new teachers • Compensation to encourage gaining new skills • Re-certification requirements to support high-quality professional learning
Retention	• Working conditions • Compensation

RESOURCE

Revisiting What States Are Doing to Improve the Quality of Teaching: An Update on Patterns and Trends.
http://depts.washington.edu/ctpmail/

Some levers are more often in the hands of state policymakers (e.g., certification), while others may be influenced by district policymakers (e.g., school working conditions). Many are influenced or can be used by both state and district policymakers, and the areas of opportunity themselves often overlap. Common sense suggests that these levers will improve teacher quality, but most exhibit limited or conflicting evidence about their effectiveness.

Pre-Service

In the pre-service period, teacher candidates enter and go through teacher training. Not all teachers follow the traditional route of teacher training before entering the classroom. Many new teachers work in classrooms and go through teacher training programs at the same time. This does not diminish the role of different policy levers.

Scholarships, Loans, and Loan-Forgiveness as Incentives to Enter Teacher Training

States and districts can use resources, such as scholarships, loans, and loan-forgiveness programs, to provide incentives to enter teaching. One approach is a "grow-your-own" program to help people who live in or around hard-to-staff schools become teachers. For example, the Paraprofessional Teacher Training program, "a grow your own" program in California, provides scholarships and support while paraprofessionals take the required college coursework to become teachers. These programs hold promise for addressing teacher shortages and preparing teachers who better understand the needs of diverse learners and know how to tailor instruction to meet those needs.

Licensure/Certification Requirements

Another way for policymakers to influence teacher quality is by raising certification requirements, which often includes adding skills and higher performance requirements. There is some debate, however, about the effects of certification requirements on prospective teachers. Some argue that certification keeps poor teachers out of the classroom; others argue that certification reduces the pool of people willing and eligible to enter the profession (Ballou & Podgursky, 1997). It's assumed that by increasing certification requirements, teacher quality increases, which increases students' achievement. But this is hotly debated (Goldhaber & Brewer, 2000; Darling-Hammond, Berry, & Thoreson, 2001).

RESOURCES

Interstate New Teacher Assessment and Support Consortium: www.ccsso.org/intasc.html

A Case of Successful Teaching Policy: Connecticut's Long-Term Efforts to Improve Teaching and Learning **http://depts.washington.edu/ctpmail/**

A promising trend in teacher licensure and certification is the move from input requirements (such as college credit-hour requirements) to knowledge, skills, and performance requirements measured in multiple ways, including portfolios. For example, the Interstate New Teacher Assessment and Support Consortium (INTASC), a consortium of education agencies and organizations has created a set of model performance-based standards for licensing new teachers. INTASC, a program of the Council of Chief State School Officers, is also developing discipline-specific teaching standards.

The key to effectively using the certification policy lever may be raising standards to increase the quality of applicants *and* increasing teacher salaries to maintain a sufficient pool of applicants. This approach was undertaken nationwide in the 1950s as the United States geared up to educate the baby-boom generation (Sedlak & Schlossman, 1986). More recently, Connecticut undertook a comprehensive approach that includes higher licensing standards, higher teacher standards, and other teaching policies. The state's teacher quality initiatives appear to have played a role in subsequent increases in students' achievement levels on the National Assessment of Educational Progress (Wilson, Darling-Hammond, & Berry, 2001).

Accreditation of Teacher Preparation Programs

RESOURCE

National Council for Accreditation of Teacher Education: www.ncate.org

State policymakers can encourage the improvement of teacher preparation by raising accreditation requirements for teacher preparation programs (Lauer, 2001; Wilson, Floden, & Ferrini-Mundy, 2001). Many states and schools of education are raising requirements for entrance, continuation, and graduation. There are multiple sources of standards and guidance about teacher preparation programs. In particular, many states have adopted or adapted the accreditation standards developed by the National Council for Accreditation of Teacher Education (NCATE).

A key issue in teacher preparation is the wide variation in the quality of programs. Part of the reason for this variation is that teacher preparation programs may not have good sources of information about their graduates' effectiveness and few incentives to respond to this information. To improve the quality of teacher preparation programs, the federal government passed the Teacher Quality Enhancement Act (1998), which requires states to measure the performance of teacher preparation programs based on students' passing rates on licensure tests.

RESOURCE

Testing Teacher Candidates: The Role of Licensure Tests in Improving Teacher Quality
See www.nap.edu/books/0309074207/html/index.html

However, there are concerns that it may not be appropriate to base conclusions about the quality of teacher preparation programs on licensure tests because these tests are more valid measures of content knowledge than the ability to perform in a classroom. Although requiring states to report passing rates on licensure tests may be a first step in encouraging improvement in teacher preparation, current research "makes it hard to determine what effect licensure tests might have on improving the actual competence of beginning teachers" (National Research Council, 2001, p. 11).

Research offers little clear guidance on additional efforts to improve teacher preparation. There is evidence that teachers' scores on some tests, such as tests of verbal ability, are related to students' overall achievement (Ehrenberg & Brewer, 1995). Research also indicates that there is a relationship between students' achievement and the subject in which a teacher majors or minors. For example, students of teachers with mathematics degrees have been found to have higher mathematics achievement (Wenglinsky, 2000). Most of these links have been found at the secondary level.

Models of Exemplary Practices and Programs

Another way that policymakers can help to improve the quality of teacher preparation is by providing examples of high-quality programs. For example, states might provide funding to identify exemplary programs in their own state or encourage institutions in their state to learn from programs identified

by others (e.g., American Association of Colleges of Teacher Education, U.S. Department of Education's National Awards Program for Effective Teacher Preparation). The U.S. Department of Education's awards program requires candidates to gather and submit three types of evidence to demonstrate the effectiveness of the program at various stages of a candidate's progress through a teacher preparation program:

1. Evidence that demonstrates that data has been gathered and used to make improvements to the program
2. Evidence that demonstrates that new teacher graduates have acquired the skills and knowledge needed to help all students learn
3. Evidence that demonstrates that graduates can improve student learning

Recruitment and Selection

The purpose of recruitment is to attract high-quality individuals into the classroom. Recruitment efforts are important to improving teacher quality, but cannot quickly transform a teacher workforce since new hires make up only a small proportion of any district's total workforce.

Raising compensation is expected to improve the number and quality of applicants, which will allow districts to improve the quality of new hires. Districts with higher salaries do have more teachers with better qualifications, that is, they attended more selective colleges and are more likely to have majored in the subject they teach.

Effective Communication

There are a variety of strategies to help schools and districts attract high-quality people into the classroom, but effective recruitment begins with effective communication. Policymakers can increase the likelihood of hiring high-quality teachers by improving the flow of information between districts and schools with vacancies and potential applicants. Among the strategies states have used to inform potential candidates about job opportunities are one-stop locations for vacancy announcements — including Web-based clearinghouses where applicants can post resumes and complete applications online.

Teacher Mobility Policies

Recruitment strategies should take advantage of the increased mobility of experienced teachers. The 2000 census revealed that professionals have become even more mobile than they were in the past, often living in several different locations over the course of a career. To encourage

RESOURCES

***Literature Review on Teacher Recruitment Programs*, U.S. Department of Education, Washington, D.C. www.ed.gov/offices/OUS/eval**

A catalog of state recruitment efforts is maintained by the Education Commission of the States under the issue of Teaching Quality: www.ecs.org

RESOURCES

Information about teacher mobility is available through the National Association of State Directors of Teacher Education and Certification (www.nasdtec.org) and the State Higher Education Executive Officers (www.sheeo.org).

experienced teachers to apply for positions, states and/or districts can increase the number of years of experience and education that can be used for placement on the salary schedule. (This approach was taken by Wyoming.) Certification reciprocity agreements between states also increase districts' ability to attract experienced or well-qualified teachers.

Alternate Approaches to Entering Teaching

States can use several policy levers to support alternate approaches to entering teaching. These approaches are intended to increase the number and quality of teachers by attracting new teachers from nontraditional sources, such as mid-career changers and recent graduates who did not go through traditional teacher education programs. Anecdotal evidence indicates that these alternative sources can be good sources of new ideas, perspectives, and skills. But evidence also suggests that induction programs that serve alternate sources of teachers do not always provide adequate training or support. This lack of training reduces the effectiveness of new teachers. Without adequate support, the first years of teaching may not be a positive enough experience to retain these new teachers, thus making this route less cost effective in the long run.

Using this strategy effectively also requires attention to the realities of mid-career changers' lives. For example, it may be necessary to modify training requirements to teaching because by mid-career, many adults have financial obligations that make it difficult for them to go through a training program without also having a source of income. Stipends, paid internships, or other supports could make the critical difference for many.

RESOURCES

Mid-Atlantic Teachers Project paper, *Removing Pension Barriers to Teacher Mobility in the Mid-Atlantic Region*: www.c-b-e.org/martp/p4pension.htm

State Higher Education Executive Officers report on *Improving Pension Portability*: www.sheeo.org

Mid-career changers also have concerns about the pension system. One way to alleviate these concerns is to create a pension system that allows new mid-career teachers to obtain pension benefits without working 15–20 years in the system. (This is also important for experienced teachers who have moved from other states or districts.)

Many teacher retirement systems are traditional pension programs in which employees' eligibility and amount of retirement benefits are defined by the number of years a person works in the system. Often, mid-career adults entering teaching may be unable or unwilling to work the years needed to attain benefits under a traditional pension system. Possible strategies for dealing with this problem include allowing new mid-career teachers to become immediately vested, allowing teachers to purchase service credits, or providing access to a defined contribution retirement plan. Defined contribution programs (sometimes known as 401k or 403b) are more portable and flexible because retirement benefits are a result of the contributions made to a fund, not how long a person works.

RESOURCES

U.S. Department of Education's lessons from the Eisenhower program: www.ed.gov/inits/teachers/eisenhower

National Staff Development Council's standards for professional development: www.nsdc.org/educatorindex.htm

New American Schools guidelines to support whole school transformations: www.naschools.org/respub/tools.phtml

National Awards Program for Model Professional Development: www.wested.org/cs/wew/view/rs_press/5

In-Service

While teachers are working in the classroom, during in-service, policymakers have several levers they can use to improve teacher quality.

Professional Learning

Professional learning during service provides a tool both for improving the quality of teachers who are already in the classroom and for keeping them in the classroom. Since the main source of teachers in any given year is the current teacher pool, professional development is an obvious method for improving the quality of the teacher workforce. Opportunities and financial rewards for participation in professional learning serve as incentives for teachers to continue in their careers. Key policies to support professional learning include creating and funding induction, mentoring, and professional development programs.

School and district leaders should send a consistent message that the purpose of professional study is the ongoing improvement of instruction to enhance students' learning. One visible way to communicate this message is for administrators to be involved in instructional improvement efforts and to allocate resources for professional development. A key to success is the availability of time for staff to participate in professional learning. To improve teacher quality, professional development should be based on students' needs, address teachers' content knowledge, be linked to standards, and include opportunities for teachers to discuss instructional practices and ways in which to improve them.

Induction Programs

Induction programs are used to provide support and help new teachers improve their teaching. The quality and content of induction and mentoring programs for new teachers vary widely. Although it is difficult to find concrete evidence of the effectiveness of induction programs (Gold, 1996), there is some evidence that they improve retention rates for new teachers. For example, the California Beginning Teacher Support and Assessment program has been shown to have a first-year retention rate of up to 94 percent. Factors central to the success of mentoring and induction programs, which policymakers should consider, include the amount of resources dedicated to the program and the amount and quality of mentor training.

Compensation and Quality Teaching

Compensation systems play a role in teacher quality. Traditional pay schedules clearly reward additional experience and education for teachers.

RESOURCES

An issue paper on pay for performance is available under the issue of Teaching Quality on the Education Commission of the States's site: www.ecs.org.

Consortium of Policy Research in Education, *Enhancing Teacher Quality through Knowledge- and Skills-Based Pay*: www.cpre.org.

Although it is generally true that teachers' ability to help students learn increases with years of classroom experience, the relationship between teachers' additional college education and students' achievement is less clear. The clearest link between teacher education and student achievement is between teachers' subject-matter coursework and student achievement in that subject.

Rather than rewarding teachers for time spent in the classroom or additional college credits earned, some districts have developed alternate compensation systems that pay teachers for performance or skills. These systems face the problems of identifying and measuring teacher quality or skills, and in establishing individual reward levels in a collegial system. The Center for Policy Research in Education suggests that effective school-based performance award programs need to have processes in place to allow teachers to improve their skills and performance, that they must be reliable, and that rewards should be in the range of $1,500–$3,000 per teacher, per year (Odden, 2000).

Re-certification

Through re-certification requirements, states provide guidance to teachers about knowledge and skills they should develop. Central to the effectiveness of professional development is the quality, duration, and relevance of the professional development teachers receive. Certification requirements that support high-quality professional development include guidelines that focus on the processes (e.g., linking professional development to students' needs) and outputs (e.g., improved student learning) of professional development, as well as inputs (e.g., contact hours) to professional development.

RESOURCE

National Board for Professional Teaching Standards: www.nbpts.org.

National Board for Professional Teaching Standards (NBPTS) certification provides a vision of good teaching and serves as a tool to direct individual teacher professional development. There is emerging evidence of the effectiveness of National Board Certification as a method to improve teacher quality. Through supporting and rewarding NBPTS Certification, through such polices as paying NBPTS expenses or offering bonuses for certification, policymakers can encourage teachers who demonstrate knowledge and skills associated with high student achievement.

Retention

Retention is about making teaching more attractive than other alternatives available to good teachers. The more successful schools and districts are in retaining high-quality teachers, the less effort they need to put into hiring and training new teachers.

RESOURCE

The Southeast Center for Teaching Quality, *Recruiting Teachers for Hard-to-Staff Schools*.
See www.teachingquality.org.

Retention is a particularly acute problem in schools with many at-risk students (e.g. low income or limited English proficient). Emerging research is clearly showing that schools with high proportions of at-risk students are consistently staffed with the least experienced and less qualified teachers. These schools often have many new teachers each year who leave teaching or quickly move to schools with fewer at-risk students in part because they are not prepared to cope with the challenges in these schools. As a result, students with the most need often have the least prepared teachers in terms of education and experience. Solving this problem will require focus and the use of a number of the policy levers discussed in this brief.

Working Conditions

A recent study by Ingersoll (1999) finds that about 6 percent of teachers leave teaching in any one year. Of those who leave the classroom, 42 percent leave because of job dissatisfaction or to pursue other career opportunities either inside or outside of education. Just 25 percent of attrition is due to retirement. The main sources of dissatisfaction were low compensation and a host of issues around working environments, such as lack of support from school administration, lack of student motivation, and lack of teacher influence over school decision making.

Working conditions can be improved in a number of ways, such as providing opportunities for professional learning, increasing access to technology, increasing administrative support for teachers, reducing student conflict, reducing class size or teaching load, and increasing faculty influence on decision making. Some of these methods, such as reducing class size or increasing parental involvement, may improve student outcomes independently of the effect on teacher retention.

Compensation and Retention

The relationship between compensation and retention is complex and there are multiple factors to consider when setting compensation levels. For example, teachers in subject areas with many high-paying alternatives, such as those who teach mathematics or physical science, often have higher attrition rates (Murnane, Singer, & Willett, 1989). To increase the chances that these teachers will remain in teaching, some districts provide higher salaries to mathematics and science teachers than teachers in other disciplines. Similarly, some districts compensate those willing to teach in high-needs schools more than other teachers with similar experience and education.

Toward a More Comprehensive System

Many policies can influence the quality of the teacher workforce and no one policy is the single most important tool for accomplishing that goal.

NCTAF'S recommendations for a comprehensive plan to improve the quality of teaching:

1. **Get serious about standards, for both students and teachers.**
2. **Reinvent teacher preparation and professional development.**
3. **Fix teacher recruitment and put qualified teachers in every classroom.**
4. **Encourage and reward teacher knowledge and skill.**
5. **Create schools that are organized for student and teacher success.**

See www.nctaf.org

Neither teacher compensation, certification standards, nor teacher participation in school decision-making is the silver bullet. Only multiple policies working together have the potential to make significant changes in teacher quality. The National Commission on Teaching and America's Future (NCTAF) has a five-point recommendation for improving teacher quality that impacts each stage of a teaching career.

Policies that affect teacher quality are under the authority of many different players at different levels within the policy system. This complicates the implementation of a comprehensive program to improve teacher quality and makes it important to pay as much attention to enacting systemic change as to enacting specific policies. The process of changing the system must involve participants at all levels — from the local school board and district office to the state legislature and the governor's office.

Constant monitoring and feedback of the effects of policies are critically important to improving the quality of the teacher workforce. Policymakers need to know if teacher quality is improving and if activities under their authority — accreditation of teacher preparation programs, certification standards, recruitment strategies, professional development programs, and compensation systems — are supporting that improvement. This means that policymakers at all levels of the education system must agree on indicators of teacher quality and develop ways to systematically evaluate the effectiveness of policies intended to improve teacher quality. The goal is to create a comprehensive system for ensuring teacher quality — a system that learns from itself and continuously improves.

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a brief on teacher quality
for state and local policymakers

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